

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Svarfvar et al.
Application No.: 09 / 552,221 Group No.: 2827
Filed: April 19, 2000 Examiner: Dinh
For: EMI SHIELDING FOR PORTABLE ELECTRONIC DEVICES

Commissioner for Patents
Washington, D.C. 20231

TRANSMITTAL OF APPEAL BRIEF
(PATENT APPLICATION—37 C.F.R. § 1.192)

NOTE: The phrase "the date on which" an "appeal was taken" in 35 U.S.C. 154(b)(1)(A)(ii) (which provides an adjustment of patent term if there is a delay on the part of the Office to respond within 4 months after an "appeal was taken") means the date on which an appeal brief under § 1.192 (and not a notice of appeal) was filed. Compliance with § 1.192 requires that: 1. the appeal brief fee (§ 1.17(c)) be paid (§ 1.192(a)); and 2. the appeal brief complies with § 1.192(c)(1) through (c)(9). See Notice of September 18, 2000, 65 Fed. Reg. 56366, 56385-56387 (Comment 38).

1. Transmitted herewith, in triplicate, is the APPEAL BRIEF in this application, with respect to the Notice of Appeal filed on 1/21/03.

NOTE: "Appellant must, within two months from the date of the notice of appeal under § 1.191 or within the time allowed for reply to the action from which the appeal was taken, if such time is later, file a brief in triplicate. . . ." 37 C.F.R. § 1.192(a) (emphasis added).

CERTIFICATION UNDER 37 C.F.R. §§ 1.8(a) and 1.10*

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37 C.F.R. § 1.8(a)

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Ann Okrentowich

Signature

Ann Okrentowich

Date: 4/21/03

(type or print name of person certifying)

* Only the date of filing (§ 1.6) will be the date used in a patent term adjustment calculation, although the date on any certificate of mailing or transmission under § 1.8 continues to be taken into account in determining timeliness. See § 1.703(f). Consider "Express Mail Post Office to Addressee" (§ 1.10) or facsimile transmission (§ 1.6(d)) for the reply to be accorded the earliest possible filing date for patent term adjustment calculations.

(Transmittal of Appeal Brief [9-6.1]—page 1 of 4)

05/01/2003 JMCNILLA 00000002 09552221

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05/01/2003 JMCNILLA 00000001 09552221

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AND INTERFERENCES

2. STATUS OF APPLICANT

This application is on behalf of

- ☒ other than a small entity.
☐ a small entity.

A statement:

- ☐ is attached.
☐ was already filed.

3. FEE FOR FILING APPEAL BRIEF

Pursuant to 37 C.F.R. § 1.17(c), the fee for filing the Appeal Brief is:

- ☐ small entity \$160.00
☒ other than a small entity \$320.00

Appeal Brief fee due \$ 320.00

4. EXTENSION OF TERM

NOTE: 37 C.F.R. § 1.704(b) "...an applicant shall be deemed to have failed to engage in reasonable efforts to conclude processing or examination of an application for the cumulative total of any periods of time in excess of three months that are taken to reply to any notice or action by the Office making any rejection, objection, argument, or other request, measuring such three-month period from the date the notice or action was mailed or given to the applicant, in which case the period of adjustment set forth in § 1.703 shall be reduced by the number of days, if any, beginning on the day after the date that is three months after the date of mailing or transmission of the Office communication notifying the applicant of the rejection, objection, argument, or other request and ending on the date the reply was filed. The period, or shortened statutory period, for reply that is set in the Office action or notice has no effect on the three-month period set forth in this paragraph."

NOTE: The time periods set forth in 37 C.F.R. § 1.192(a) are subject to the provision of § 1.136 for patent applications. 37 C.F.R. § 1.191(d). See also Notice of November 5, 1985 (1060 O.G. 27).

NOTE: As the two-month period set in § 1.192(a) for filing an appeal brief is not subject to the six-month maximum period specified in 35 U.S.C. § 133, the period for filing an appeal brief may be extended up to seven months. 62 Fed. Reg. 53,131, at 53,156; 1203 O.G. 63, at 84 (Oct. 10, 1997).

The proceedings herein are for a patent application and the provisions of 37 C.F.R. § 1.136 apply.

(complete (a) or (b), as applicable)

- (a) ☐ Applicant petitions for an extension of time under 37 C.F.R. § 1.136 (fees: 37 C.F.R. § 1.17(a)(1)-(5)) for the total number of months checked below:

Extension (months)	Fee for other than small entity	Fee for small entity
<input checked="" type="checkbox"/> one month	\$ 110.00	\$ 55.00
<input type="checkbox"/> two months	\$ 410.00	\$ 205.00
<input type="checkbox"/> three months	\$ 930.00	\$ 465.00
<input type="checkbox"/> four months	\$ 1,450.00	\$ 725.00
<input type="checkbox"/> five months	\$ 1,970.00	\$ 985.00

Fee: \$ 110.00

(Transmittal of Appeal Brief [9-6.1]—page 2 of 4)

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If an additional extension of time is required, please consider this a petition therefor.

(check and complete the next item, if applicable)

- ☐ An extension for _____ months has already been secured, and the fee paid therefor of \$ _____ is deducted from the total fee due for the total months of extension now requested.

Extension fee due with this request \$ _____

or

- (b) ☐ Applicant believes that no extension of term is required. However, this conditional petition is being made to provide for the possibility that applicant has inadvertently overlooked the need for a petition and fee for extension of time.

5. TOTAL FEE DUE

The total fee due is:

Appeal brief fee \$ 320.00

Extension fee (if any) \$ 110.00

TOTAL FEE DUE \$ 430.00

6. FEE PAYMENT

- ☒ Attached is a ☒ check ☐ money order in the amount of \$ 430.00
- ☒ Authorization is hereby made to charge the amount of \$ 430.00 fee deficiencies
- ☒ to Deposit Account No. 23-0442
- ☐ to Credit card as shown on the attached credit card information authorization form PTO-2038.

WARNING: Credit card information should **not** be included on this form as it may become public.

- ☐ Charge any additional fees required by this paper or credit any overpayment in the manner authorized above.

A duplicate of this paper is attached.

7. FEE DEFICIENCY

NOTE: If there is a fee deficiency and there is no authorization to charge an account, additional fees are necessary to cover the additional time consumed in making up the original deficiency. If the maximum six-month period has expired before the deficiency is noted and corrected, the application is held abandoned. In those instances where authorization to charge is included, processing delays are encountered in returning the papers to the PTO Finance Branch in order to apply these charges prior to action on the cases. Authorization to change the deposit account for any fee deficiency should be checked. See the Notice of April 7, 1986, 1065 O.G. 31-33.

- ☒ If any additional extension and/or fee is required,

AND/OR

- ☒ If any additional fee for claims is required, charge:

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Date: April 21, 2003

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SIGNATURE OF PRACTITIONER

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application Of:

B. Svarfvar et. al.

Serial No.: **09/552,221** : Examiner: **Tuan T. Dinh**

Filed: **April 19, 2000** : Group/Art Unit: **2827**

For: **EMI SHIELDING FOR PORTABLE ELECTRONIC DEVICES**

Assistant Commissioner for Patents
Box AF
Washington, DC 20231

BRIEF FOR APPELANT

Sir:

This is an appeal brief in furtherance of a Notice of Appeal, regarding a Final Official Action dated October 21, 2002. This appeal brief is being filed within three months from the date of appeal. The Office date of receipt of the Notice of Appeal was January 21, 2003.

I. The Real Party In Interest

The real party in interest is Nokia Mobile Phones., a corporation duly organized under the laws of Finland, and having a principal place of business in Espoo, Finland.

I hereby certify that a copy of this document has been deposited with the United States Postal Service on the date below, in an envelope with sufficient postage as first-class mail addressed to the Assistant Commissioner for Patents, Washington, DC 20231.

Ann Okrentowich

Ann Okrentowich

4/21/03

Date

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II. Related Appeals and Interferences

There are no related appeals and interferences which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

III. Status of Claims

Claims 1-19 are pending. Claims 1-17 stand rejected. The rejections of claims 1-17 are being appealed. Claims 18 and 19 stand allowed and are not being appealed. Claims 4-5, 14 and 17 are objected to but are indicated to be allowable if rewritten in independent form including the limitations of the base claims and intervening claims

IV. Status of Amendments

No amendment was filed subsequent to the mailing date of the October 21, 2002 Final Action finally rejecting the claims 1-17.

V. Summary of the Invention

The invention relates to a method for EMI shielding and to EMI shielding apparatus for portable electronic devices. The invention as claimed defines EMI shielding apparatus for a portable electronic device characterized by “an electrically conductive fiber mesh net insert molded into wall surfaces defining an interior cavity of the device.” The invention overcomes the problems of the prior art by providing EMI shielding as an integral part of the cover of a lightweight plastic or other suitable lightweight material (page 2, lines 33 to page 3, line 1),

forming the device in such a manner that economical mass-production techniques are usable in the manufacture. The “--fiber mesh net sheet 70 is insert molded---into the mold cavity 74 and fuses with the material of the cover structure---“ (page 12, lines 13-17). The EMI shield of the invention is an integral part of the housing enclosure or case of the electronic device because the electrically conductive fiber mesh net is insert molded into wall surfaces defining an interior cavity of the device. The fiber mesh net can be totally covered by and within the material forming the cover structure (page 12, lines 27-29).

The patent application specification at page 11, lines 8-18, recites a cover structure or housing shell 40 wherein fiber mesh net designated 42 is shown insert molded into a predefined interior cavity 44 formed by the wall 46 of the cover and internal walls 48, 50 of the inner side, or electronic circuitry facing side 52 of the cover 40. The interior cavity 44 is positioned in the cover to enclose the area ---- to be EMI shielded when the cover is placed on a receiving housing shell or base structure of the electronic device.

Further, the patent application specification at page 12, lines 18-20 and 33-34, specifies that the insert molded fiber mesh net 82 in the interior cavity 84 of the cover structure 80 as shown in Fig. 11 is shown in a cutaway view in Fig. 12 illustrating the co-action of the cover 80 with a receiving housing shell or base structure 90 of the electronic device. Clearly, the invention contemplates the EMI shielding to be an integral part of the cover of the electronic device in which the fiber mesh net is inert molded at the time the cover is molded using for example, a multi-cavity mold structure 72 (page 12, lines 7-19).

The invention further specifies fiber mesh net textile structures for carrying out the insert molding into wall surfaces defining an interior cavity of the device.

VI. Issues

The following four issues will be addressed in the Argument:

whether the Final Action erred in rejecting claims 1-2, 8-9 and 16 due to anticipation in view of the cited prior art;

whether the Final Action erred in rejecting claims 6, 10-11 and 15 due to obviousness in view of the cited prior art;

whether the Final Action erred in rejecting claims 7 and 12 due to obviousness in view of the cited prior art, and

whether the Final Action erred in rejecting claims 3 and 13 due to obviousness in view of the cited prior art.

VII. Grouping of the Claims

Claims 1-17 do not stand or fall together. The patentability of claims 1-17 will be argued separately.

VIII. Argument

A. Error in Anticipation Rejection With Respect to Claims 1-2, 8-9 and 16

It is respectfully submitted that the reasoning of the Final Action is in error with respect to whether, under 35 USC §102(b), the claimed invention would have been anticipated in view of Knecht et. al. (U.S. Patent No. 5,313,371).

The rejections are erroneous because Knecht does not teach disclose or suggest a method or EMI shielding apparatus for a portable electronic device characterized by “an electrically conductive fiber mesh net insert molded into wall surfaces defining an interior cavity of the device.” The Examiner has failed to show that the wire mesh 202 is:

- 1) an electrically conductive fiber mesh net,

The Examiner has failed to show that the wire mesh 202 is

- 2) insert molded into wall surfaces defining an interior cavity of the electronic device.

Knecht teaches that the wire mesh net 202 is removed after the conductive flash is sprayed through the voids in the wire mesh 202. See column 3, lines 60-62 wherein Knecht et al. indicate that “many lids 102 may be placed on a sputtering platen in a random arrangement, before a continuous wire mesh 202 is placed over them.”

The invention as claimed defines an EMI shielding method and apparatus that is technically distinguishable from the *Knecht* device. *Knecht* teaches sputtering a flash metal through the voids of a wire mesh net placed over the “many lids 102” and then removing the wire mesh net 202. The purpose of *Knecht* is to provide a way to sputter a flash metal pattern in the lid.

Specifically, Knecht et al. does not suggest, disclose or teach an electrically conductive fiber mesh net insert molded into wall surfaces and therefore lacks at least one essential element of Applicants' invention as disclosed and claimed. Further, Knecht et al. teach away from a fiber mesh net for EMI shielding, but rather teaches a patterned conductive flash metalization layer deposited on the interior surface of the lid 102. Knecht et al. do not teach nor show, nor contemplate, nor suggest the insert molding of an electrically conductive fiber mesh net into a wall wherein the fiber mesh net fuses with the material of the cover structure of the electronic device as disclosed and claimed in the present invention. There is no mention that a fiber mesh net is used for EMI purposes or in fact is inserted into the inner contour of the lid 102, nor does the Examiner identify such a fiber mesh net in the Knecht reference or show any motivation why one would use a fiber mesh net in the Knecht structure. Independent claims 1 and 8 recite an electrically conductive fiber mesh net insert molded into a wall of the device which is an essential element not found in Knecht et al. Claims 2, 9 and 16 depend directly from claims 1 and 8 respectively and further define the electrically conductive fiber mesh net insert molded into a wall of the device in contact with a ground plane of a circuit board carried in the device and claim 16 recites the electrically conductive fiber mesh net may be preformed. The limitation of claims 2, 9 and 16 are not suggested by Knecht because Knecht lacks an essential element.

The wire mesh 202 in Knecht et al. is technically and physically different from Applicants' fiber mesh net and is used for a completely different reason than to provide EMI shielding. The purpose of the wire mesh 202 in Knecht is to provide a patterned piece for deposition of the conductive flash metalization layer onto the interior surface of the cover 102

and not to provide EMI shielding. The wire mesh 202 is not retained in the cover and is not intended to be retained in the cover much less insert molded as disclosed and claimed in independent claims 1 and 8. Note that the pattern 203 corresponds to the openings in the wire mesh through which the plating source 207 is used to deposit the conductive flash on the film 110. (See column 3, lines 44-68.) The Examiner equates a deposited film 110 on the edge of the lid 102 as being an electrically conductive fiber mesh net insert molded into a wall of the device. Knecht clearly states (column 3, lines 33-42) that the film 110 is disposed on the edge of the lid 102 and positioned to contact a peripheral layer 108 on the circuit board to form an airtight hermetic seal in the prior art and goes on to teach a plating process for metalization of a pattern on the film 110 and interior of the lid 102. Knecht teaches a method to overcome the problem of using a reflow process between 110 and 108 to provide an airtight seal (column 3, lines 39-42) by using a metalization pattern of conductive flash on the film 110. Knecht teaches (column 4, lines 26-30) that the voids between the conductive flash provide controlled wicking between the film 110 and the material used to affix the lid 102 to the substrate 104 during the reflow process. The wire mesh 202 of Knecht et al. does not provide the required electrical and structural properties of the electrically conductive fiber mesh net insert of the invention as defined in the specification and claims (page 8, lines 11-35 to page 9, lines 1-21; page 9, lines 27-34 to page 10, lines 1-16; page 10, lines 17-34 to page 11, lines 1-4). In fact, Knecht et al. does not even mention dimensional characteristics or EMI shielding characteristics of the wire mesh 202 because the wire mesh 202 does not and cannot provide EMI shielding nor is it intended to do so.

It is also noted that Knecht et al. disclose that sputtering machines are well suited for carrying out the embodiment of his invention and that many lids 102 may be placed on a sputtering platen in a random arrangement, before a continuous wire mesh 202 is placed over them. The orientation of the pattern in the wire mesh 202 with respect to the edges of the lids 102 is unimportant. The wire mesh 202 is not used to provide EMI shielding nor is the wire mesh 202 left in place in the lid. Accordingly, not only is the wire mesh 202 not an electrically conductive fiber mesh net, it is not insert molded into the cover of the portable electronic device nor is the wire mesh flexible or woven in accordance with the teachings of the applicants' invention.

Furthermore, the sputtering technique of Knecht even if applied as alleged by the Examiner would not produce Applicants' invention as disclosed and claimed. Sputtering cannot be used as a production method in a structure as contemplated by the application. Sputtering does not lend itself to a vacuum-process because it is too complicated, too slow and too expensive and defeats the economical mass production method as contemplated by the injection molding process of the present invention. Additionally, attempting to sputter a pattern as suggested by the Examiner results in a very thin metalization layer that cannot provide the conductivity required for EMI shielding as is realized in Applicants' invention. Further, sputtering cannot insert mold a conductive fiber mesh net as disclosed and claimed in Applicants' invention. At best, Knecht suffers from the same problems and has similar disadvantages of metalized surface coating for EMI shielding as the prior art does (page 2, lines 30-34 to page 3, lines 1-7). Accordingly, applicants submit the Knecht et al. reference is

deficient and fails to anticipate the invention under 35 U.S.C. §102(b) because it lacks an essential element of an electrically conductive fiber mesh net insert molded into a wall of the device.

B. Error in Obviousness Rejection With Respect to Claims 6, 10-11 and 15

Claims 6, 10-11 and 15, stand rejected as being unpatentable over Knecht et al. in view of Lamp et al. (U.S. Patent Number 3,580,981). The Examiner asserts Knecht et al. disclose all of the limitations of the claimed invention except for the fiber mesh net being a bobbinet woven three directional mesh net. The Examiner alleges Lamp et al. show an EMI shielding a gasket as shown in Figs. 1-4 having a fiber mesh net made by bobbinet woven in three directions. The Examiner concludes it would be obvious at the time the invention was made to modify the EMI shielding apparatus of Knecht et al. and provide the fiber mesh net made by bobbinet woven in three directions as taught Lamp et al. in order to dissipate heat and facilitate the shielding against EMI.

First, as stated above, Applicants submit that Knecht et. al. does not suggest, disclose or teach a fiber mesh net or a fiber mesh net insert molded into wall surfaces and therefore lacks at least one essential element of Applicants' invention. Next, *Lamp* discloses a honeycombed electrically conductive ventilating panel having a shielding gasket 13 between the honeycomb 12 and the frame 11 of the cabinet holding the electronic equipment. The gasket of *Lamp* is not sufficient to provide EMI shielding and only provides protection for leakage between the two components. *Lamp* does not contemplate or show insert molding and uses a tin metal coating bath to coat the faces of the honeycomb (column 3, lines 7-19). *Lamp* does not have a

conductive fiber mesh net of any type but rather a honeycomb structure with pores extending from top to bottom, which is totally different than the flexible structure of the present invention. Combining Lamp with Knecht, if such a combination could be made as alleged by the Examiner, does not overcome the fundamental deficiency of Knecht much less replicate Applicants' invention. Claims 6, 10-11 and 15 define an electrically conductive bobbinet fiber mesh net insert molded into a wall surface. Lamp does not teach, disclose or suggest an electrically conductive fiber mesh net nor a bobbinet fiber mesh net insert molded into a wall surface.

C. Error in Obviousness Rejection With Respect to Claims 7 and 12

The Examiner combines the Knecht et al. reference with the Bruner et al. (U.S. Patent 5,795,835) to reject claims 7 and 12 indicating Bruner et al. teaches a warp knit textile mesh and alleges that it would be obvious to modify the EMI shielding of Knecht et al. to provide the warp knit textile mesh as taught by Bruner et al. The *Bruner* reference discloses a knitted textile for use as a structural load bearing element in demanding earthwork construction applications. The *Bruner* structure is a plastic fiber which is a mechanically strong object and cannot be placed in a mold for insert molding to become an integral part of the cover of an electronic device. Again, combining Bruner with Knecht, if such a combination could be made as alleged by the Examiner, does not overcome the fundamental deficiency of Knecht much less replicate Applicants' invention. Knecht et al. lacks the essential element of an electrically conductive fiber mesh net insert molded into a wall of the device. Claims 7 and 12 define the fiber mesh net is a textile structure mesh net. Bruner does not teach, disclose or suggest a textile structure mesh

net, much less one that one skilled in the art of EMI shielding and insert molding would turn to provide the electrically conductive fiber mesh net as defined in the specification and claims.

D. Error in Obviousness Rejection With Respect to Claims 3 and 13

The Examiner combines Knecht et al. with Yoshikawa et al. (U.S. Patent 6,150,754) to reject claims 3 and 13 asserting that Yoshikawa et al. teaches the fiber mesh net laminated to the polymer film sheet, and alleges that it would have been obvious to one skilled in the art to provide the fiber mesh net laminated to the polymer film sheet as taught by Bruner et al. The *Yoshikawa* reference deals with a layer structure that is glued or laminated together in contrast to an insert molded structure and further deals with a transparent mesh member interposed between two transparent plates and bonded by adhesives. There is no suggestion or disclosure that *Bruner* can be insert molded, much less that *Bruner* can provide EMI shielding apparatus characterized by an electronically conductive fiber mesh net insert molded into wall surfaces defining an interior cavity of the device. Again, combining Yoshikawa with Bruner and Knecht, if such a combination could be made as alleged by the Examiner, does not overcome the fundamental deficiency of Knecht which lacks the essential element of an electrically conductive fiber mesh net insert molded into a wall of the device much less replicate Applicants' invention. Claims 3 and 13 define the fiber mesh net laminated to a polymer film sheet.

The Examiner has failed to set forth a *prima facie* case to establish why one of ordinary skill in the art of EMI shielding and insert molding would have been led to the claimed invention by the express teachings or suggestions found in the prior art or by implications contained in such teachings or suggestions. Just because the prior art can be modified in the way suggested

by the Examiner does not make the modification obvious unless the desirability of the modification is suggested by the prior art.

Applicants further submit that the Examiner has attempted to establish obviousness by using hindsight in view of the teachings or suggestions of the application. As set forth above, there is no specific finding or a suggestion to combine the references as suggested by the Examiner, particularly in view of the lack of teaching by *Knecht* to use an electrically conductive fiber mesh net for EMI shielding and more particularly the lack of any suggestion, disclosure or teaching of an electrically conductive fiber mesh net insert molded into wall surfaces defining an interior cavity of the device.

E. General Legal Aspects of Anticipation Rejections

The basic legal premise involved in this case is that a claimed invention is unpatentable under 35 U.S.C. § 102(b) "only if each and every element as set forth in the claim is found, either expressly or inherently described in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 U.S.P.Q. 2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the ...claim." *Richardson v. Suzuki Motor Co.*, 868 F. 2d 1226, 1236, 9 U.S.P.Q. 2d 1913, 1920 (Fed. Cir. 1989). Whether an invention is anticipated or not is a legal conclusion which depends upon an underlying factual inquiry and determination of the invention as contemplated by the elements of the claims as interpreted in the specification.

F. The Final Action Has Not Succeeded In Using the Knecht Reference to Establish *prima facie* Anticipation.

With respect to the pending claims in this application, the Examiner has not made out a *prima facie* case that the subject matter of claims 1-2, 8-9 and 16 are anticipated. This is due to the fact that the prior art reference does not teach or suggest all the claim elements. As discussed, the cited prior art does not teach the essential element of an electrically conductive fiber mesh net insert molded into a wall surface of the device.

Accordingly, it is respectfully submitted that the Knecht reference is fatally defective in that the single prior art reference does not anticipate because each and every element as set forth in the claim is not found in the Knecht reference.

G. General Legal Aspects of Obviousness Rejections

The basic legal premise involved in this case is that a claimed invention is unpatentable under 35 U.S.C. § 103(a) only if the differences between it and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art. Whether an invention is obvious or not is a legal conclusion which depends upon an underlying factual inquiry. The factual inquiry requires looking at: (1) the scope and content of the prior art; (2) the level of ordinary skill in the art; (3) the differences between the claimed invention and the prior art; and (4) objective evidence of non obviousness. *Graham v. John Deere Co.*, 383 U.S. 1, 14, 148 USPQ 459, 465 (1966). Thus, to properly reject claims in an application under Section 103, it is well established law that the Examiner, acting on behalf of the U.S. Patent and Trademark Office (PTO), must show an

unrebutted *prima facie* case of obviousness using the factual inquiry articulated in *Graham*. *In re Dembiczak*, 50 USPQ 2d 1614, 1616 (Fed. Cir. 1999).

The analysis regarding whether an invention is obvious to one of ordinary skill in the art begins in the text of §103, with the phrase "at the time the invention was made." *In re Dembiczak*. This phrase in the statute guards against entry into the "tempting but forbidden zone of hindsight," when measuring claims under § 103. *In re Dembiczak* at 1616, citing *Loctite Corp. v. Ultraseal Ltd.*, 781 F.2d 861, 873, 228 USPQ 90, 98 (Fed. Cir. 1985). Measuring a claimed invention against the standard established by § 103 requires the oft-difficult but critical step of casting the mind back to the time of invention, to consider the thinking of one of ordinary skill in the art, guided only by the prior art references and the then-accepted wisdom in the field. *In re Dembiczak* at 1616 citing *W.L. Gore & Assoc., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1553, 220 USPQ 303, 313 (Fed. Cir. 1983). Close adherence to the above described methodology is critical in the case of less technologically complex inventions, where the very ease with which the invention can be understood may prompt one "to fall victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against its teacher." *In re Dembiczak* at 1617, citing *W.L. Gore & Assoc.* at 313. The decisional law articulated by the Court of Appeals for the Federal Circuit makes it clear that the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references. *In re Dembiczak* at 1617, citing *C.R. Bard, Inc. v. M3 Sys., Inc.*, 157 F.3d 1340, 1352, 48 USPQ 2d 1225, 1232 (Fed. Cir. 1998) (describing "teaching or suggestion or motivation [to combine]" as

an "essential evidentiary component of an obviousness holding"); *In re Rouffet*, 149 F.3d 1350, 1359, 47 USPQ 2d 1453, 1459 (Fed. Cir. 1998) ("the Board must identify specifically...the reasons one of ordinary skill in the art would have been motivated to select the references and combine them"); *In re Fritch*, 972 F.2d 1260, 1265, 23 USPQ 2d 1780, 1783 (Fed. Cir. 1992) (examiner can satisfy burden of obviousness in light of combination "only by showing some objective teaching [leading to the combination]"); *In re Fine*, 837 F.2d 1071, 1075, 5 USPQ 2d 1596, 1600 (Fed. Cir. 1988) (evidence of teaching or suggestion "essential" to avoid hindsight); *Ashland Oil, Inc. v. Delta Resins & Refractories, Inc.*, 776 F.2d 281, 297, 227 USPQ 657, 667 (Fed. Cir. 1985) (district court's conclusion of obviousness was error when it "did not elucidate any factual teachings, suggestions or incentives from this prior art that showed the propriety of combination"). See also *Graham*, 383 U.S. at 18, 148 USPQ at 467 ("strict observance" of factual predicates to obviousness conclusion is required). Combining prior art references without evidence of such a suggestion, teaching, or motivation simply takes the inventor's disclosure as a blueprint for piecing together the prior art to defeat patentability--the essence of hindsight. *In re Dembiczak* at 1617 citing *Interconnect Planning Corp. v. Feil*, 774 F.2d 1132, 1138, 227 USPQ 543, 547 (Fed. Cir. 1985) ("The invention must be viewed not with the blueprint drawn by the inventor, but in the state of the art that existed at the time.").

The Court of Appeals for the Federal Circuit has noted that evidence of a suggestion, teaching, or motivation to combine may flow from the prior art references themselves, the knowledge of one of ordinary skill in the art, or, in some cases, from the nature of the problem to be solved. *In re Dembiczak*, referring to *Pro-Mold & Tool Co. v. Great Lakes Plastics, Inc.*, 75

F.3d 1568, 1573, 37 USPQ 2d 1626, 1630 (Fed. Cir. 1996), *Para-Ordinance Mfg. v. SGS Imports Intern., Inc.*, 73 F.3d 1085, 1088, 37 USPQ 2d 1237, 1240 (Fed. Cir. 1995), although "the suggestion more often comes from the teachings of the pertinent references." *In re Rouffet*, 149 F.3d at 1355, 47 USPQ 2d at 1456. The range of sources available, however, does not diminish the requirement for actual evidence. *In re Dembiczak* at 1617. The showing must be clear and particular. *In re Dembicizak* at 1617 citing *C.R. Bard*, 157 F.3d at 1352, 48 USPQ 2d at 1232. Broad conclusory statements regarding the teaching of multiple references, standing alone, are not "evidence." *In re Dembicizak* at 1617.

Thus, an applicant can overcome a rejection by showing that there is insufficient evidence of *prima facie* obviousness. *In re Rouffet* at 1455. In the absence of a proper *prima facie* case, an applicant who complies with the other statutory requirements is entitled to a patent. *Id.*

H. The Final Action Has Not Succeeded in Using the *Knecht and Lamp* References to Establish *Prima Facie* Obviousness

With respect to the pending claims in this application, the Examiner has not made out a *prima facie* case that the subject matter of such claims is obvious. This is due in large part to the fact that the prior art references do not teach or suggest all the claim limitations. As discussed, the cited prior art does not teach or suggest a method and structure of EMI shielding a portable electronic device characterized by "an electrically conductive fiber mesh net insert molded into wall surfaces defining an interior cavity of the device." Likewise, the cited prior art does not

teach or suggest fiber mesh net textile structures for carrying out the insert molding into wall surfaces defining an interior cavity of the device.

Accordingly, when the *Graham* factors are considered, the rejection is clearly in error with respect to the pending claims 3-7, 10-15 and 17. In sum, the showing or teachings of the references must be clear and particular, *In re Dembicizak* at 1617 citing *C.R. Bard*, 157 F.3d at 1352, 48 USPQ 2d at 1232. Broad conclusory statements drawn from the narrow, specific teaching of one of the references, standing alone, are not "evidence." *In re Dembicizak* at 1617.

It is respectfully submitted that the only way that the Examiner could have made the conclusion that the claimed subject matter was obvious in view of the *Knecht* and *Lamp* combination was with the benefit of hindsight reconstruction using the Applicants' own teachings as a blueprint for the rejection. The law is well established that this is not a proper basis for rejecting a claimed invention. See *In re Rouffet* at 1457.

It is respectfully submitted that the reasoning of the Final Action does not point to some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the teaching of *Knecht* or to combine *Knecht* in view of *Lamp* in the manner presently proposed. For example, given the teaching of *Knecht*, nothing on the record suggests why one of ordinary skill in the art of EMI shielding and insert molding would be motivated to modify the teaching of *Knecht* to provide a method and structure of EMI shielding a portable electronic device characterized by "an electrically conductive fiber mesh net insert molded into wall surfaces defining an interior cavity of the device."

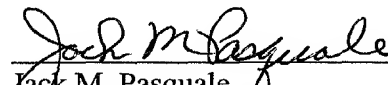
IX. Conclusion

For all of the aforementioned reasons, it is respectfully submitted that claims 1-2, 8-9 and 16 are patentable under 35 U.S.C. § 102(b) over *Knecht*; claims 6, 10-11 and 15 are patentable under 35 U.S.C. § 103(a) over the combination of *Knecht* in view of *Lamp*; claims 7 and 12 are patentable under 35 U.S.C. § 103(a) over the combination of *Knecht* in view of *Brenner*; claims 3 and 13 are patentable under 35 U.S.C. § 103(a) over the combination of *Knecht* in view of *Yoshikawa*. Under the law announced by the Court of Appeals for the Federal Circuit, the Final Action has not set forth a *prima facie* case for obviousness of the claimed subject matter in view of the teachings of the references. The rejection of claims 1-17 should be reversed, and it is respectfully requested that the obviousness rejections be reconsidered and withdrawn. Early allowance of all the claims is earnestly solicited.

Respectfully submitted,

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APPENDIX A

1. Method for EMI shielding a portable electronic device characterized by insert molding an electrically conductive fiber mesh net into a wall of said device to shield first electronic circuitry contained within said device.
2. Method for EMI shielding a portable electronic device as set forth in claim 1 further characterized in that at least a portion of said fiber mesh net is brought into direct continuous physical and electrical contact with a ground plane carried on a circuit board substrate within said electronic device.
3. Method for EMI shielding a portable electronic device as set forth in claim 1 further characterized in that said fiber mesh net is laminated to a polymer film sheet.
4. Method for EMI shielding a portable electronic device as set forth in claim 3 further characterized in that said polymer film sheet has an electrically non-conductive surface opposite said fiber mesh net surface for carrying second electronic circuitry, said fiber mesh net having at least a portion extending to the non-conductive side for mechanical and electrical coupling to said second electronic circuitry.
5. Method for EMI shielding a portable electronic device as set forth in claim 4 wherein said fiber mesh net is further characterized by part of said fiber mesh net being a mixture of conductive and non-conductive fibers, at least one of said conductive fibers carrying electrical signals from said first electronic circuitry on said printed circuit board to said second electronic circuitry.
6. Method for EMI shielding a portable electronic device characterized by insert molding an electrically conductive fiber mesh net into a wall surface defining an

interior cavity surrounding first electronic circuitry contained within said device further characterized by providing a bobbinet woven fiber mesh net.

7. Method for EMI shielding a portable electronic device as set forth in claim 6 further characterized by providing a fiber mesh net comprising a textile structure including warp knitted, woven, Raschel, braided, nonwoven and spun multidirectional textile structures.
8. EMI shielding apparatus for a portable electronic device characterized by an electrically conductive fiber mesh net insert molded into wall surfaces defining an interior cavity of said electronic device, said cavity having a size, shape and contour to surround first electronic circuitry within said electronic device.
9. EMI shielding apparatus as set forth in claim 8 further characterized in that at least a portion of said insert molded electrically conductive fiber mesh net is in a substantially continuous physical and electrical contact with a ground plane carried on a circuit board substrate within said electrical device.
10. EMI shielding apparatus as set forth in claim 9 further characterized in that said fiber mesh net is a bobbinet woven fiber mesh net.
11. EMI shielding apparatus as set forth in claim 9 further characterized in that said fiber mesh net is a bobbinet woven 3-directional fiber mesh net.
12. EMI shielding apparatus as set forth in claim 8 further characterized in that said fiber mesh net comprises a textile structure mesh net including all of warp knitted, woven, Raschel, braided, nonwoven and spun multidirectional fiber mesh nets.

13. EMI shielding apparatus as set forth in claim 8 further characterized in that said fiber mesh net is laminated to a polymer film sheet.
14. EMI shielding apparatus as set forth in claim 13 further characterized in that said polymer film sheet has an electrically non-conductive surface opposite said fiber mesh net surface for carrying second electronic circuitry, and said fiber mesh net having at least a portion electrically coupled to said second electronic circuitry and to first electronic circuitry within said electrical device for passing electronic signals between said first and second electronic circuitry.
15. EMI shielding apparatus as set forth in claim 11 further characterized in that said bobbinet woven 3-directional fiber mesh net is characterized by 6 to 34 openings per inch and a specific weight of 10 to 50 grams per square meter.
16. EMI shielding apparatus as set forth in claim 8 further characterized in that said fiber mesh net is preformed to the size, shape and contour of said interior cavity for insert molding therein.
17. EMI shielding apparatus as set forth in claim 14 further characterized in that said fiber mesh net is inserted molded into a cover portion of said electrical device such that said second electronic circuitry is electronically coupled to other electronic circuitry carried on the exterior of said cover and arranged for functional co-action with said second electrical circuitry to pass electrical signals between said other and said second circuitry.
18. EMI shielding apparatus for a portable electronic device characterized by an electrically conductive fiber mesh net insert molded into wall surfaces defining an interior cavity of said electronic device, said cavity having a size, shape and contour

to surround first electronic circuitry within said electronic device, said fiber mesh net further being laminated to a polymer film sheet, and further characterized in that said polymer film sheet has an electrically non-conductive surface opposite said fiber mesh net surface for carrying second electronic circuitry, and said fiber mesh net having at least a portion electrically coupled to said second electronic circuitry and to first electronic circuitry within said electrical device for passing electronic signals between said first and second electronic circuitries.

19. EMI shielding apparatus as set forth in claim 18 further characterized in that said fiber mesh net is inserted molded into a cover portion of said electrical device such that said second electronic circuitry is electronically coupled to other electronic circuitry carried on the exterior of said cover and arranged for functional co-action with said second electrical circuitry to pass electrical signals between said other and said second electronic circuitries.